

# KINGSTON ASH RECOVERY PROJECT

## MONTHLY REPORT

June 2012

**Aerial Image of Kingston Ash Slide (05/30/2012)**



0 1,000 2,000 3,000 4,000  
Feet

Date of imagery: 05/30/2012

Tennessee Valley Authority  
Realty, GIS & Land Records

Filename: ImageOnly\_20120530\_8x11

# KINGSTON ASH RECOVERY PROJECT

## MONTHLY REPORT

June 2012

### **SAFETY**

- Thirty-nine (39) individuals attended site-specific health, safety and environment (HSE) orientations during June – 2,222 year to date. Fifty-three (53) site-specific refresher courses were conducted during the month of June - 435 year to date.
- Thirty-nine (39) safety observation reports (SORs) were submitted during June – 2,896 year to date; 2,895 are closed.
- No injuries or incidents to report.

### **INFRASTRUCTURE / ASH MANAGEMENT**

- Efforts for site maintenance, dust control, and HAZWOPER control continued.
- Continued recovering cenospheres from the onsite ponds.

### **ASH SLURRY AND POND TOTAL SUSPENDED SOLIDS (TSS) CONTROL**

- Daily total suspended solids (TSS) sampling and pH monitoring were performed throughout the ash slurry system. The TSS of the sluice trench discharge averaged 69.0 mg/L, the main ash pond effluent TSS averaged 1,497.5 and the stilling pond effluent averaged 14.1 for June.
- The sluice trench effluent and ash pond effluent polymer addition rates were adjusted based on TSS levels during June.
- At the end of June, the plant was operating nine units and no water issues were encountered. High TSS from the Ash Pond was related to construction events and rainfall, but did not create any issues with the Stilling Pond effluent.

### **PLANT ASH STORAGE / INTERIM ASH STORAGE AREA (BALLFIELD)**

- Trans Ash placed and compacted dry fly ash during the month. Geosyntec provided quality control and assurance during June.
- The Kingston Fossil Plant (KIF) plant operated from two to nine units during the month, average of 5.4. The June ash produced reported by the plant was 16,797 cubic yards.

### **CENOSPHERE CONTROL ACTIVITIES**

- Daily pond inspections were performed for all ponds. Skimmer pumping from near outlet to cenosphere collection zones was carried out on all three ponds.
- Collection of cenospheres by hydro-vacuum truck was carried out during June with a total of five (5) loads captured.

### **ROUTINE MONITORING**

#### **Surface Water Sampling**

- Continued reduced scope routine surface water monitoring. All monthly stilling pond results received to date have shown compliance with the outfall National Pollutant Discharge Elimination System (NPDES) permit.
- There were no rainfall events in June that triggered storm flow sampling in Swan Pond embayment.
- Automated monitoring stations (Hydrolabs) are online continuously monitoring pH at three locations in the settling ditch system. The real-time pH results from the settling ditch system are monitored daily and used to make acid-dosing decisions to control the pH of the outflow.
- Continued daily TSS monitoring at the sluice trench, ash pond Agri-Drains and stilling pond.



**Air Sampling**

- The ambient air PM2.5 24-hour average from the continuous ambient air monitors located at the site perimeter equaled or exceeded the 26ug/m3 KRP ambient air monitoring plan (AAMP) action limit on Saturday, June 30, 2012. All other air monitoring results for June were below current AAMP action levels. An investigation into the exceedances on June 30, 2012 indicated that regional levels were also elevated and that site activities did not contribute to the elevated levels.

**Data Management**

- Provided June surface water and air monitoring results to the EPA.

**Biota Sampling**

- Virginia Tech continued tree swallow and turtle sampling and processing and are expected to continue into summer 2012.

**Non-Routine Sampling**

- Collected a "black organic water" sample from the perimeter wall on June 7, 2012 for analysis. Results from the testing indicated the material was likely run-off from naturally occurring organic material.
- Completed the quarterly groundwater sampling event June 18-20, 2012.
- Continued sample collection and on-site moisture testing in support of dredge cell and ballfield operations.
- Continued sampling support for middle embayment ash removal.

**DREDGE CELL**

- Geo-Con continued construction of PWS wall in Segment 7.
- Ash stacking continued in the central dredge cell and alongside Dike D.
- Griffin continued pumping from well points in PWS Segment 7 and began pumping from 60-foot deep well points.
- Civil Projects continued drying materials in the relic area of the southern dredge cell.
- TVA held meetings to discuss instrumentation reading interpretations and options for jet grouting of defects.

**LATERAL EXPANSION**

- Restrictions remain that limit stacking to a maximum of 1 foot per day. A stop work order was issued by Stantec due to rate of movement measured in inclinometers.
- Small quantities of ash and spoils were placed in the ash pond in preparation of the subgrade prior to stacking.
- Civil Projects placed rock to reinforce the working platform for Segment 2 and excavated a spoils trench.
- TVA held a kickoff meeting for the design of the ash pond perimeter containment (Segments 3 and 4).
- TVA submitted 90% design drawings for the sluice trench outlet piping to the regulators for review.
- Regulators approved the design drawings for the lateral expansion perimeter containment (Segment 2) and the sluice trench outlet piping. Stantec submitted 100% IFC drawings.

**RIVER ENGINEERING EVALUATION / COST ANALYSIS (EE/CA) AND BASELINE ECOLOGICAL RISK ASSESSMENT (BERA)**

- Geosynthetic submitted a draft groundwater modeling report addendum (addressing winter pool calibration of the flow model) for TVA review.
- Regulators continued review of the draft EE/CA and BERA.
- Jacobs continued revising the BHHRA in response to regulatory comments.

## **EMBAYMENT RESTORATION AND RECREATION AREA DEVELOPMENT**

- Jacobs began preparation of the revised 90% design package.
- Jacobs printed 100 copies of the final master plan.

## **MIDDLE EMBAYMENT**

- Ash removal from the middle embayment was performed during the month and the excavation target was exceeded.
- Weekly middle embayment sampling status reports were submitted.
- Drafting of NTC concurrence KIF-12-001 was near completion at month's end.

## **COMMUNICATIONS**

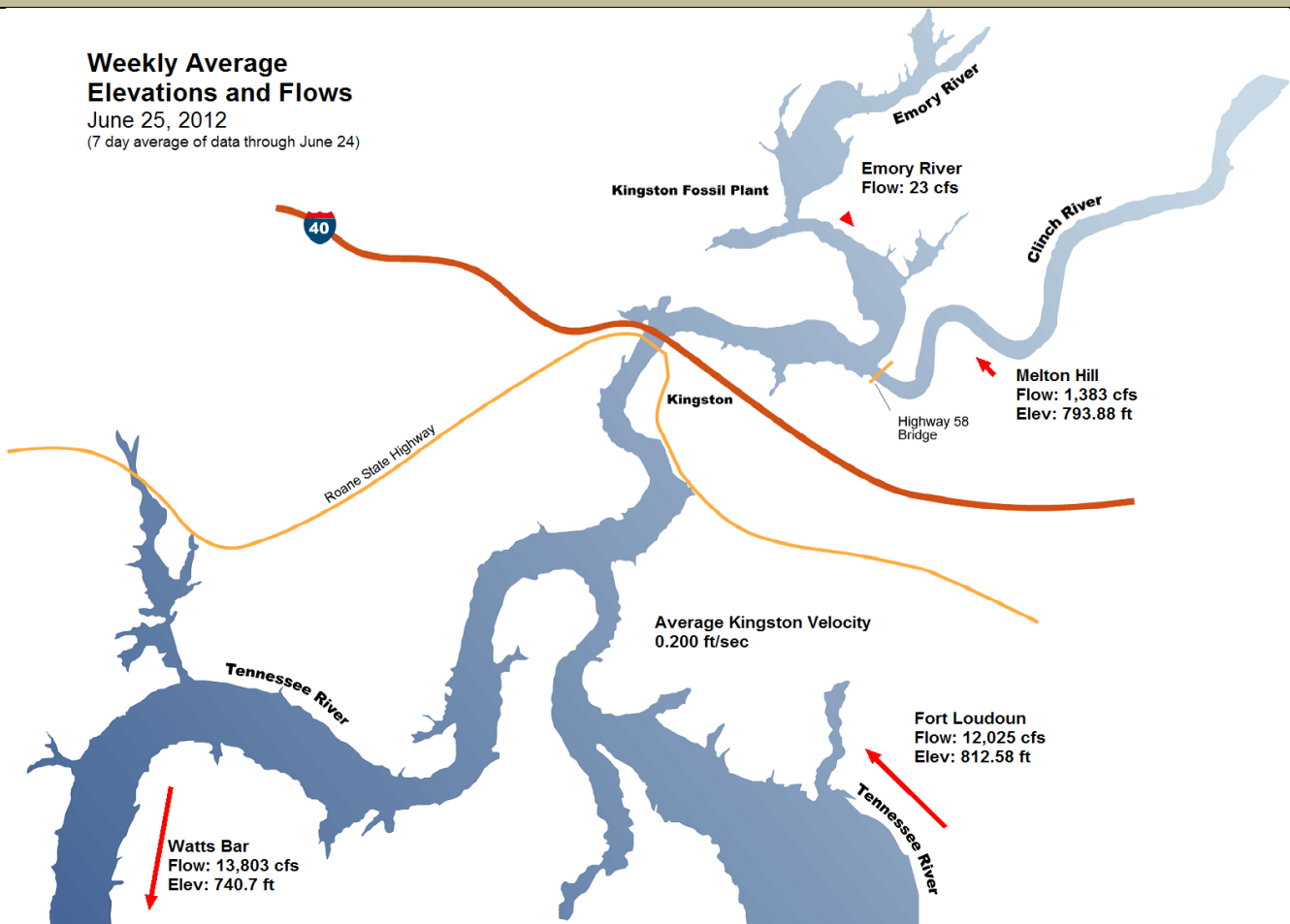
- Added weekly area resident updates to Kingston Ash Recovery website.
- Sent weekly updates to the Community Advisory Group (CAG), public officials and members of the public who have signed up to receive weekly emails.
- Updated administrative record with work plans and relevant documents.
- Continued to respond to calls from residents.
- Updated site bulletin boards.
- The information kiosk at the Swan Pond Road overlook for the general public to view the site and keep up with the progress was updated with more current information.

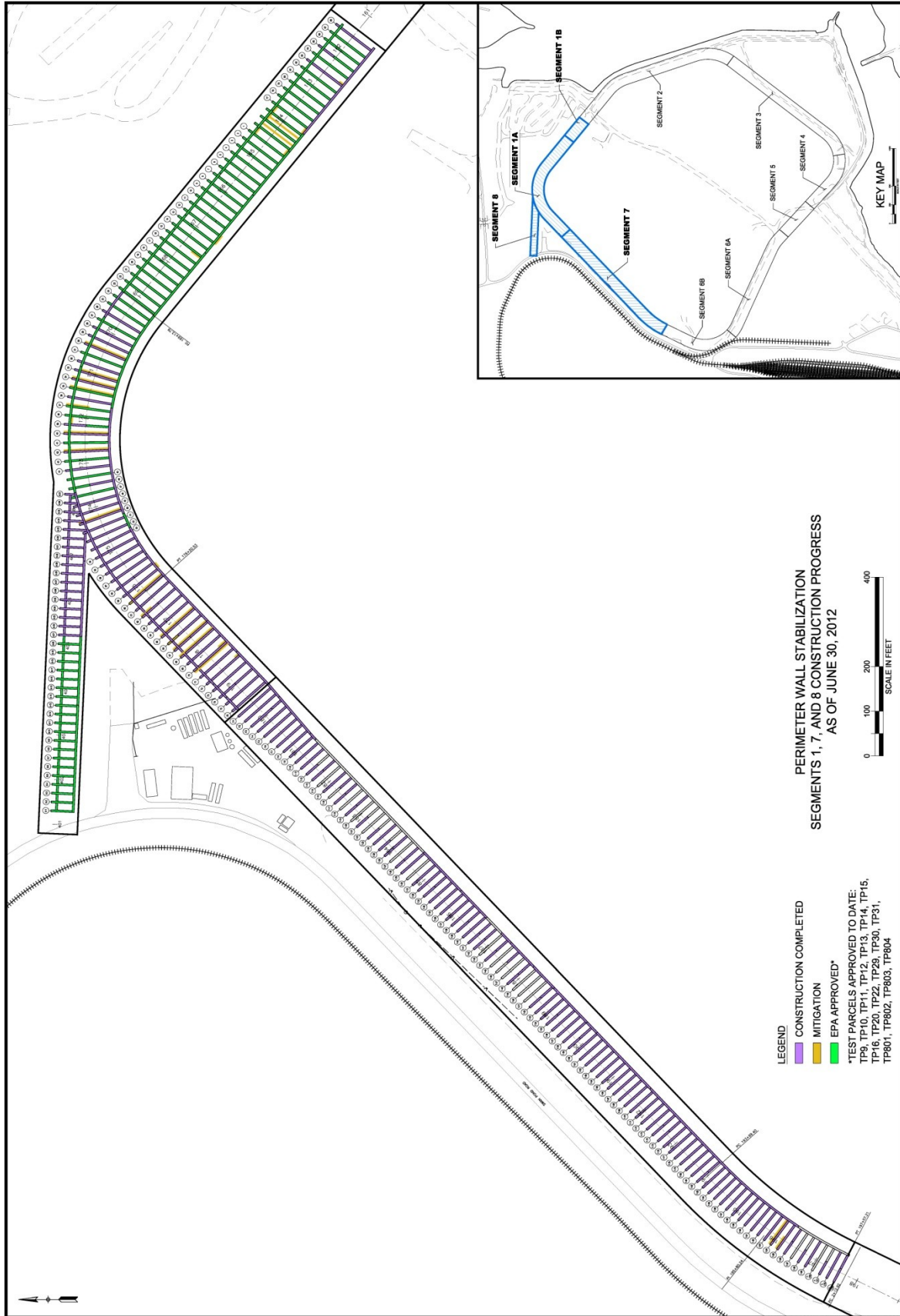
## RIVER OPERATIONS

### Weekly Average Elevations and Flows

June 25, 2012

(7 day average of data through June 24)



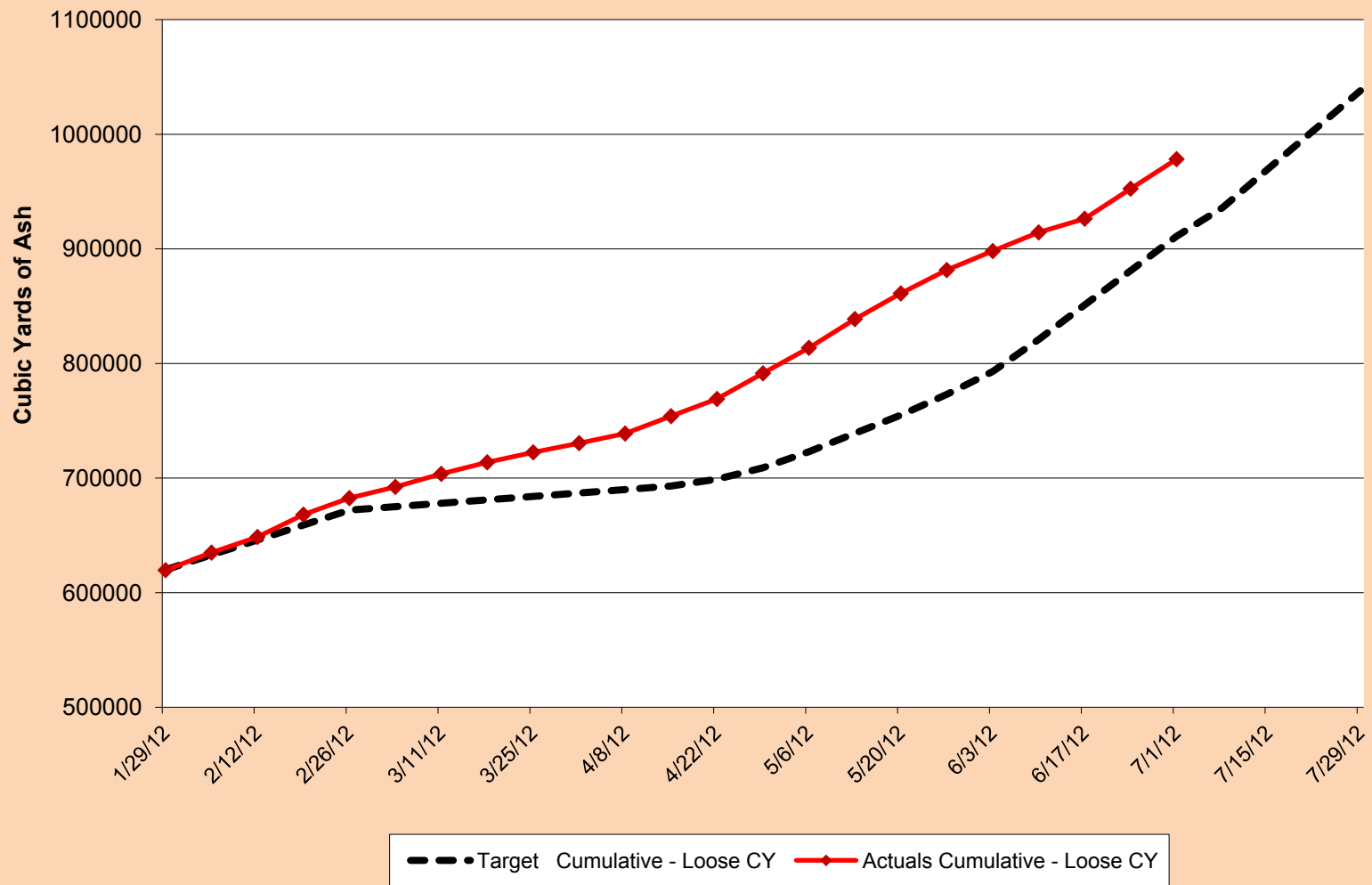


Kingston Ash Recovery Project			June 2012	Field Report	
Safety			Monthly Total	FY – Cumulative Total	
Near Misses			0	0	
First Aid Incidents			0	13	
Recordable Incidents			0	1	
Recordable Lost Time Incidents			0	0	
Environmental	Matrix	Samples	Analyses	Results	
Organization - TVA	Surface / Utility Water	5,661	48,069	260,704	
Organization - TVA	Groundwater (spring & well)	249	2,576	15,131	
Organization - TVA	Ash	756	1,333	9,973	
Organization - TVA	Soil / Sediment	1,190	2,305	17,427	
Organization - TVA	Biota	4,795	11,055	124,141	

Work Description	Period Work Performed (CYIP)	PTD Work Performed (CYIP)
<b>Ash Removal / Excavation</b>		
Total Removed from Middle Embayment	58,568	704,661
Total Removed from North Embayment	-	1,010,322
Total Removed from Settling Basins / Dike 2	522	24,662
<b>Excavated Total</b>	<b>59,089</b>	<b>1,739,645</b>
Work Description	Period Work Performed (CCY)	PTD Work Performed (CCY)
<b>Placement</b>		
Total Placed in Dredge Cell	80,676	1,070,097
Total Placed in Lateral Expansion	(3,492)	547,080
Total Placed in Ash Pond	36,607	320,032
<b>Placed Total</b>	<b>113,791</b>	<b>1,937,209</b>
Work Description	Period Work Performed (CCY)	PTD Work Performed (CCY)
<b>Storage Handling</b>		
Total Removed from Lateral Expansion	25,440	50,771
Total Removed from Dredge Cell	53,671	453,203
Total Removed from Ballfield	14,116	430,336
<b>Removed from Storage Total</b>	<b>93,228</b>	<b>934,310</b>
<b>Net Removed to(from) Ballfield Storage</b>	<b>(6,684)</b>	<b>(139,141)</b>

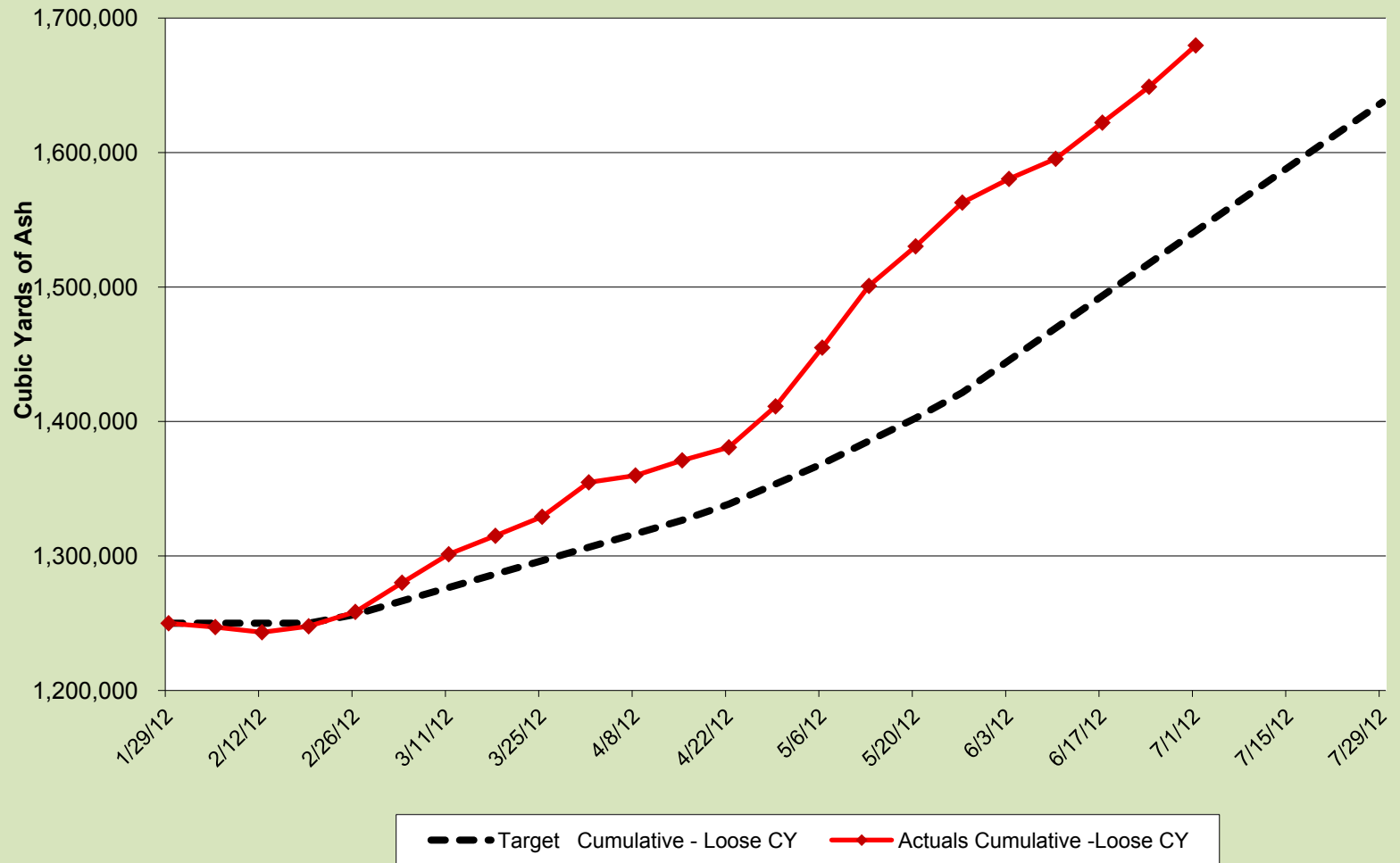
For period ending June 30, 2012.

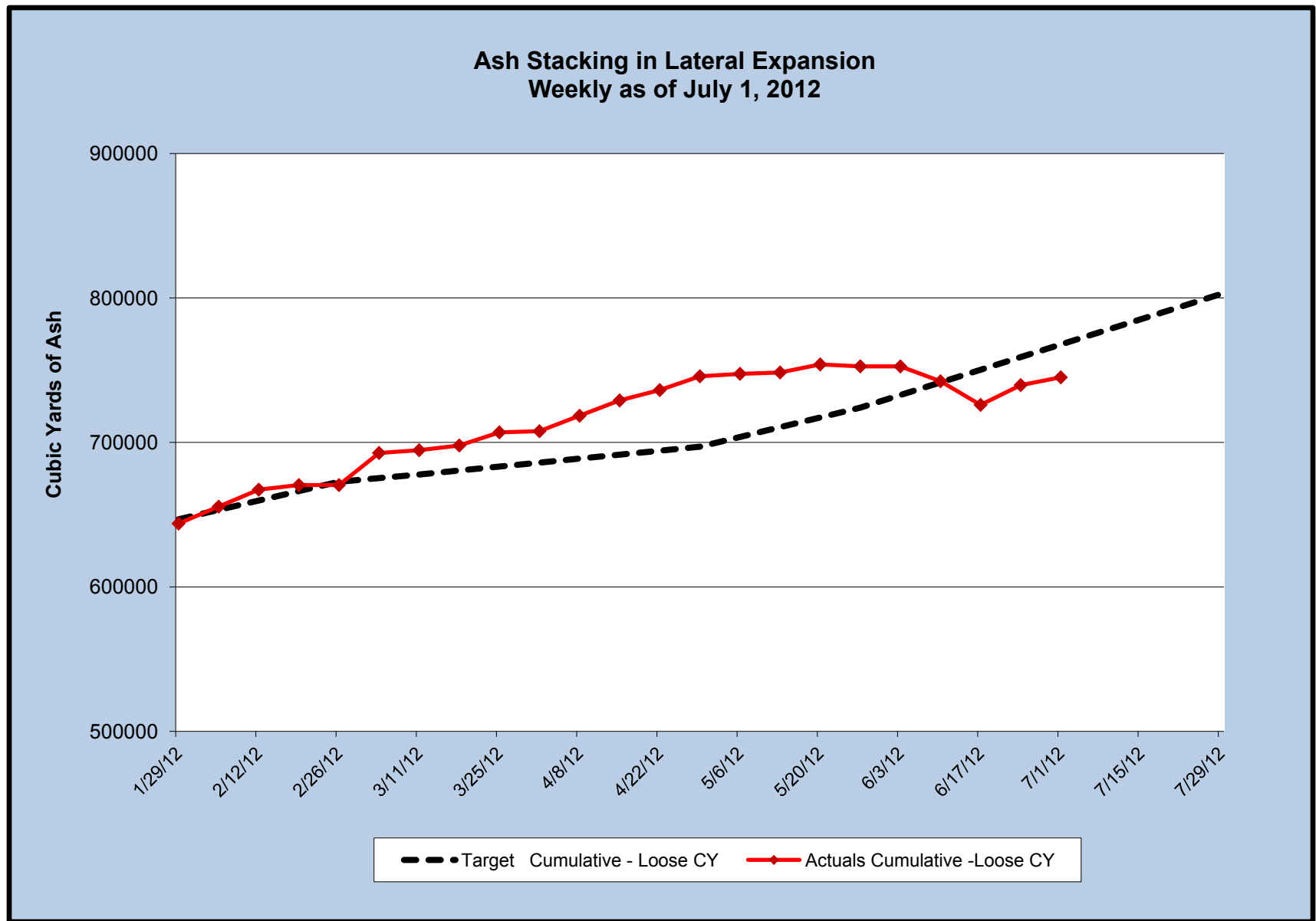
# Ash Excavation from Middle Embayment Weekly as of July 1, 2012





### Ash Stacking in Dredge Cell Weekly as of July 1, 2012





# Perimeter Wall Stabilization Segment 1A, 1B, 8 & 7 Weekly as of July 1, 2012

